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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,301	02/10/2004	Michael Dunk	128534-00801 (07029085)	1500
26565	7590	03/06/2008		
MAYER BROWN LLP P.O. BOX 2828 CHICAGO, IL 60690			EXAMINER MOSSER, KATHLEEN MICHELLE	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 03/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/775,301

Applicant(s)

DUNK ET AL.

Examiner

Kathleen Mosser

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,14,16-33,35-41,43-45,47,48,50-61 and 63-65 is/are pending in the application.
- 4a) Of the above claim(s) 19-31,51-60,64 and 65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,14,16-18,32-33,35-41,43-45,47,48,50,61 and 63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/21/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

In response to the request for continued examination filed 11/21/2007, claims 1, 2, 4-12, 14, 16-33, 35-41, 43-45, 47, 48, 50-61, and 63-65; claims 19-31, 51-60, 64 and 65 remain withdrawn from consideration.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/21/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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2. Claims 1, 2, 4-5, 8, 16-18, 32-33, 35, 39, 40-41, 48, 50, 61, and 63 rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al (US 2004/0153509) and Roschelle et al (US 6628918) Alcorn et al teaches a system including: a communication network, at least one teacher computer (client computers used by teachers), a plurality of student computers (client computers used by students), where each student computer is operable connected to each teacher computer via the communication network (see Figure 1A and paragraph 125), wherein each teacher computer includes an input device, a display, and a computer-readable storage medium containing program instructions for implementing a teacher equation editor application (see paragraph 270), as in claims 1 and 32. A comparison device claim 32, is shown in paragraph 223 (automatic grading functionality). Paragraphs 223-224 describe the ability for the teacher to create and modify test including the use of multiple-choice questions. Paragraph 283 describes how such assessment questions may include equations. The creation of a multiple-choice questions inherently includes entering a question description (the question itself) and the possible answer options to the questions (amended to claims 1 and 32), receiving a response from the students and comparing the response with the one or more answers is shown in paragraphs 173 and 223. Instructions for transmitting the question description to the student computers (claims 8, 41 and 61) is shown in paragraphs 173 and 223. Instructions for implementing a communication protocol wherein the communication protocol controls communication between the teacher computer and the plurality of student computers via the communication network (claims 2 and 33) is shown in at least paragraph 141-142. The teacher computer may include a mouse or pointing device (paragraph 387), as in claims 4 and 35. Regarding claims 5 and 36, although Alcorn does not explicitly state that the teacher computer includes a keyboard, Alcorn teaches the system having a text editors and text entering functions in paragraphs 269-270. The inclusion of these functionalities implicitly teaches the inclusion of a keyboard within the Alcorn et al system. Regarding claims 39 and 40, the questions and potential answers are stored in the central server, which also includes the comparison device, thus the comparison device stores such information, see at least paragraph 226. . Transmission to the student of a learning reinforcement signal (feedback) at substantially the same time as the comparison of the response with the one or more answers (grading) completes, as in claims 16-17, 48 and 63 is shown in paragraph 223

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and described as "instant feedback". Regarding claims 18 and 50, paragraph 278 describes the equation editor programs as an applet, which is a form of a web browser application.

Alcorn fails to teach "displaying the learning reinforcement signal on the display (of the teacher computer) at substantially the same time that the response is compared with the one or more answers (added to claims 1, in the amendment dated 12/20/2006). Roschelle teaches a network based education system in which a teacher is allowed to pose questions and receive an immediate indication on their display, see at least Figure 5, col. 9: 19-24, and col. 10: 7-13. It would have been obvious to one of ordinary skill in the art to include the feature of providing feedback to the teacher into the invention of Alcorn so as to allow the teacher to monitor the progress of students within the classroom.

Neither Alcorn nor Roschelle explicitly recites that the answers to the question include one or more of an equation and an expression (claims 1, 32 and 61). However, such a limitation is drawn to non-functional descriptive material (printed matter). Patentable weight is not given to descriptive material absent a new and unobvious functional relationship between the descriptive material and the substrate. **See In re Lowry**, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994); **In re Ngai**, 367 F.3d 1336, 1338, 70 USPQ2d 1862, 1863-64 (Fed. Cir. 2004). When the prior art describes all the claimed structural and functional relationships between the descriptive material and the substrate, but the prior art describes a different descriptive material than the claim, then the descriptive material is non-functional and will not be given any patentable weight. In this instance, none of the structure or functionality found in the limitations of claims is due to the information recited, the particular information neither enhances nor diminishes the structure and functionality of the underlying data. As such differences between the prior art and the instant claims is considered to be an obvious variant.

3. Claims 6, 7, 10-12, 14, 37, 38, and 43-45, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al (US 2004/0153509) in view of Roschelle (US 6628918) further in view of Bell et al (US 2004/0126745). Alcorn/Roschelle does not explicitly teach that the question descriptions (claims 6 and 37) and one or more answers (claims 7 and 39) are stored on the teacher computer; that the responses are received in a rendered format (claims 10 and 43), a character syntax (claims 11 and

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44), or comprises rendering the response from the character syntax into a rendered expression (claims 12 and 45); and storing an indication as to whether an answer is correct or incorrect (claims 14 and 47).

Bell et al teaches a system and method for teaching math skills to users including recording the results of each response received by the user, see Figure 11. The questions are stored on the user computer see at least paragraph 11. The responses are entered into the system in a rendered or syntactic format, see paragraphs 41-44. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the grading and answering characteristics of the Bell et al invention into the inventions of Alcorn/Roschelle so as to provide a manner for grading and answering the mathematical problems involved in the Alcorn assessments.

Response to Arguments

4. Applicant's arguments filed 11/21/2007 have been fully considered but they are not persuasive. Applicant's arguments directed to the feature, "wherein each answer includes one or more of an equation and an expression" have been fully addressed in the rejection above. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the student response must include one of an equation or an expression, and that the student uses an equation editor) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims as presented are directed only to the student submitting a response, the type of response, content of the response, and manner of creating the response are not recited. As such, the response from the student may be reasonably interpreted to be an indication of the student's response to the question posed, such as an answer to a multiple-choice question.

With respect to claims 61 and 63 applicant asserts that Alcorn fails to teach that the teacher's computer system has program instructions for transmitting the question description directly to each student computer via a communication network. The examiner notes that claims 61 and 63 are method

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steps, which are not specifically directed to "program instructions" on any of the workstations. The limitation to which the applicant is arguing recites "transmitting the question description to a plurality of student computers". There is no limitation reciting that the transmission is from the teacher computer. Within the context of these claims and the cited portions of the prior art, the system loading a web-browser displaying the quiz of the Alcorn system must transmit the contents of such to the student. The examiner further notes, that the Roschelle et al invention, though not relied upon for this feature, teaches direct communication from a teacher workstation to a student workstation, see for example col. 8:26+.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Mosser whose telephone number is (571) 272-4435. The examiner can normally be reached on M-F 8:00-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kathleen Mosser/
Primary Examiner, Art Unit 3714

February 27, 2008